

WHAT IS CLAIMED IS:

1. A local device comprising:  
an input device operable to receive speech input  
issued from a user; and
- 5 a processing component coupled to the input device  
and operable to extract feature parameters from the  
speech input for processing at the local device or,  
alternatively, at a remote system.
- 10 2. The local device of Claim 1 wherein the  
processing component is operable to search the speech  
input for keywords.
3. The local device of Claim 1 further
- 15 comprising a transceiver coupled to the processing  
component.
4. The local device of Claim 3 wherein the  
transceiver is operable to establish a connection
- 20 between the local device and the remote system to  
enable communication therebetween.

5. The local device of Claim 4 wherein the connection comprises a high bandwidth connection for returning data supporting audio or video output to a user at the local device.

5

6. The local device of Claim 4 wherein the connection comprises a low bandwidth connection for returning data supporting control signals for controlling the operation of the local device.

10

7. The local device of Claim 4 further comprising a manual input device operable to allow the user to initiate the connection.

15

8. The local device of Claim 4 wherein the processing component is operable to search the speech input for at least one keyword and to initiate the transient when the keyword is found.

20

9. The local device of Claim 1 wherein the processing component is operable to transmit the

feature parameters to the remote system so that the remote system can recognize the speech input.

10. The local device of Claim 1 further  
5 comprising a recording device operable to record the speech input issued from the user.

11. The local device of Claim 10 wherein the recording device is operable to play back the recorded  
10 speech input for transmission to the remote system.

12. The local device of Claim 1 wherein the processing component comprises a speech generation engine operable to generate speech output  
15

13. The local device of Claim 12 wherein the speech output generated by the speech generation engine is consistent with speech output generated by the remote system.  
20

14. A distributed voice user interface system comprising:

a local device operable to scan speech input issued by a user for a keyword, and to initiate communication with a remote system when the keyword is detected; and

5 the remote system operable to receive the speech input from the local device and to recognize words in the speech input.

15 15. The distributed voice user interface system of Claim 14 wherein at least one of the local device and the remote system comprises a speech generation engine operable to generate speech output for prompting or responding to the user.

15 16. The distributed voice user interface system of Claim 15 wherein the speech generation engine comprises a text-to-speech component operable to synthesize the speech output for responding to the user.

20

17. The distributed voice user interface system of Claim 15 wherein the speech generation engine

comprises a play-back component operable to play-back a pre-recorded message as the speech output.

18. The distributed voice user interface system  
5 of Claim 14 wherein the local device comprises a recording device operable to record the speech input issued by the user and subsequently play back the recorded speech input for transmission to the remote system.

10

19. The distributed voice user interface system of Claim 14 wherein the remote system is operable to access a network for retrieval of information therefrom in response to a user request.

15

20. The distributed voice user interface system of Claim 14 wherein:

the local device comprises a first speech generation engine operable to generate speech output;  
20 and

the remote system comprises a second speech generation engine operable to generate speech output.

21. The distributed voice user interface system of Claim 20 wherein the speech output generated by the second speech generation engine is consistent with  
5 speech output generated by the first speech generation engine.

22. The distributed voice user interface system of Claim 14 wherein the remote system is operable to  
10 generate a control signal for controlling the local device in response to the speech input.

23. A local device comprising:

an input device operable to receive speech input  
15 issued from a user, the speech input specifying a command or a request by the user; and

a processing component coupled to the input device and operable to perform preliminary processing of the speech input, to determine whether the local device is  
20 by itself able to respond to the command or request specified in the speech input, and to initiate communication with a remote system for further

processing of the speech input if the local device by itself is not able to respond to the command or request.

5           24. The local device of Claim 23 wherein the processing component comprises a speech recognition engine operable to recognize at least a portion of the speech input.

10           25. The local device of Claim 24 wherein the speech recognition engine is operable to search the speech input for one or more keywords.

15           26. The local device of Claim 23 wherein the processing component comprises a parameter extraction component operable to extract feature parameters from the speech input.

20           27. The local device of Claim 23 wherein the processing component comprises a speech generation engine operable to generate speech output for prompting or responding to the user.

28. The local device of Claim 27 wherein the  
speech generation engine comprises a play-back  
component operable to play-back a pre-recorded message  
5 as the speech output.

29. A remote system comprising:  
a transceiver operable to receive speech input  
issued by a user, the speech input preliminarily  
10 processed and forwarded by a local device; and  
a processing component coupled to the transceiver  
and operable to recognize words in the speech input.

30. The remote system of Claim 29 wherein the  
15 processing component is operable to generate a control  
signal for controlling the local device in response to  
the speech input.

31. The remote system of Claim 29 wherein the  
20 processing component is operable to generate speech  
output for prompting or responding to a user.



32. The remote system of Claim 29 further comprising a connector operable to connect the remote system to a network for retrieval of information therefrom in response to a user request.

5

33. The remote system of Claim 29 wherein the transceiver comprises a telephone line card.

34. The remote system of Claim 29 wherein the  
10 processing component is operable to process feature parameters which have been extracted from the speech input by the local device.

35. A method comprising:  
15 scanning speech input issued by a user at a local device for a keyword;

initiating a connection between the local device and a remote system when the keyword is detected; and  
passing the speech input from the local device to  
20 the remote system for interpretation.

36. The method of Claim 35 further comprising recording the speech input at the local device simultaneously with scanning the speech input.

5 37. The method of Claim 35 further comprising extracting feature parameters from the speech input.

38. The method of Claim 35 further comprising generating at the local device speech output which is  
10 consistent with speech output generated by the remote system.